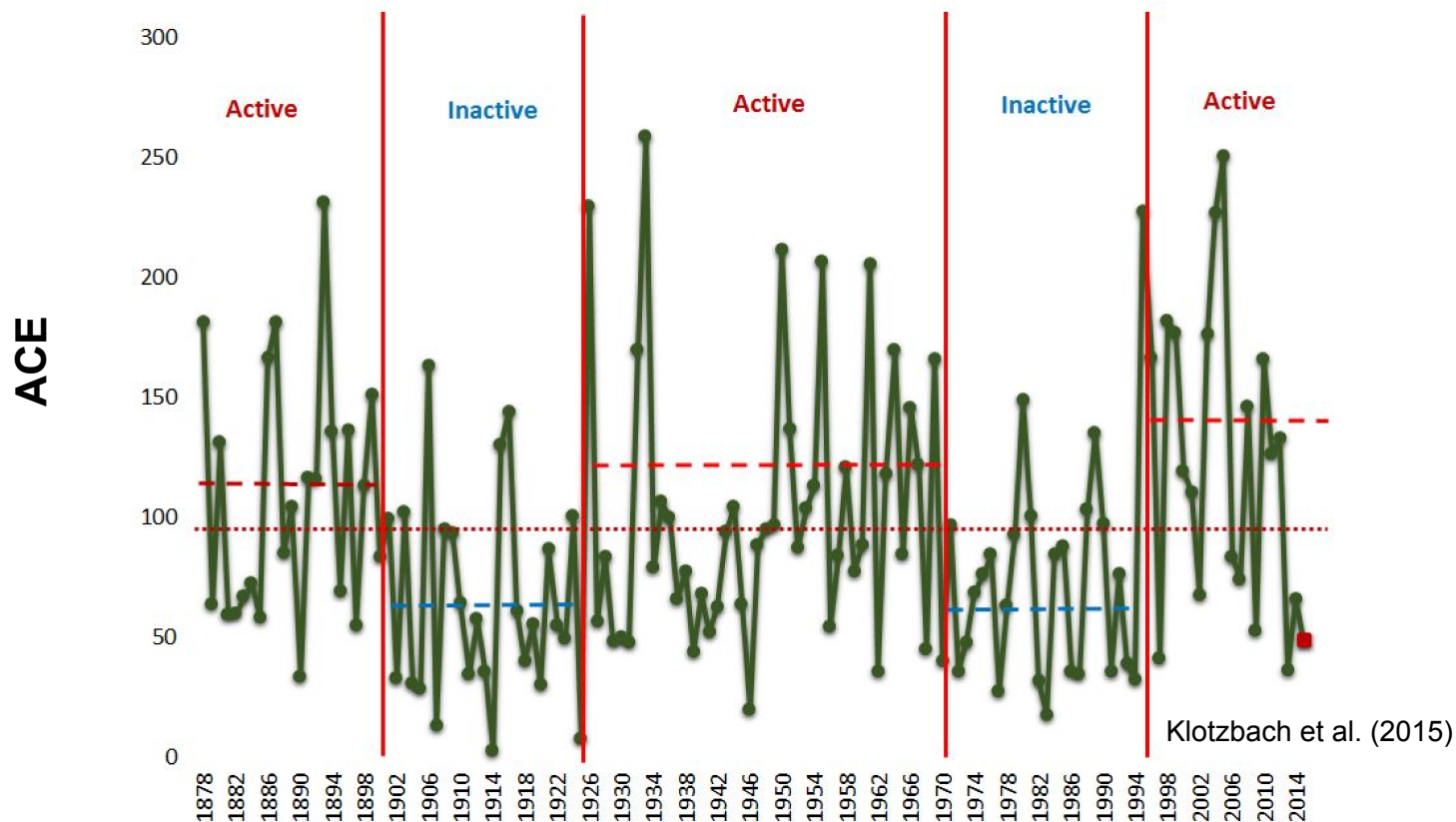


Is the current active era of Atlantic hurricane activity over? (and how we could find out...)

Louis-Philippe Caron

Climate Forecasting Unit, IC3, Barcelona

SPECS General Assembly, Norkopping
September 16th, 2015



2013 and 2014 seasons quiet
2015 below average so far...

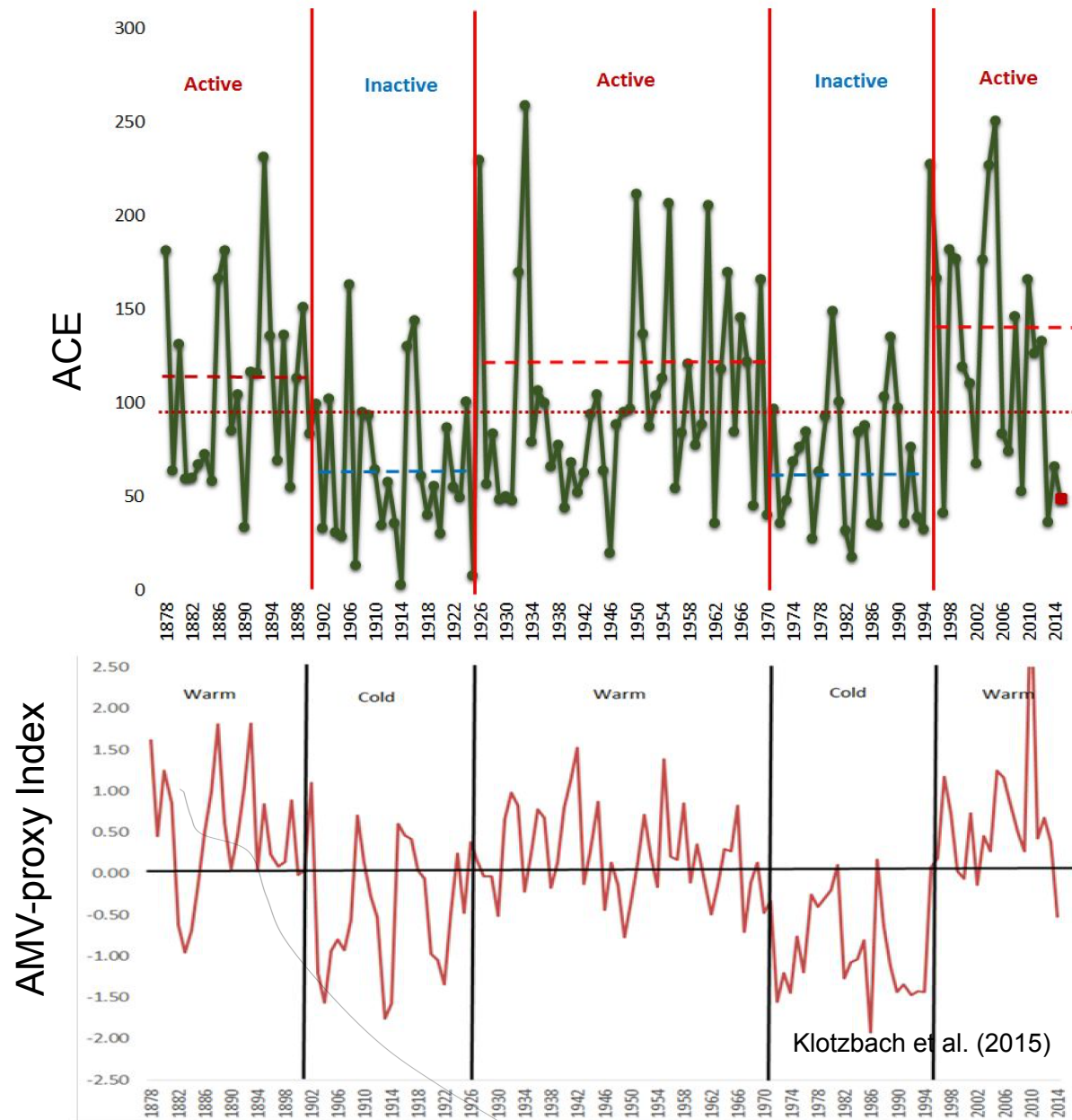
**Is it the end of the
current active
period?**



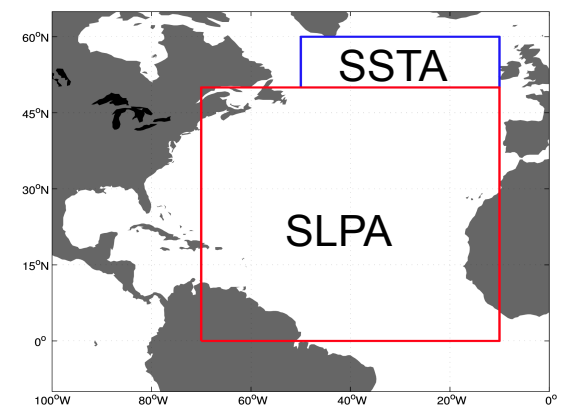
Climate Forecasting Unit



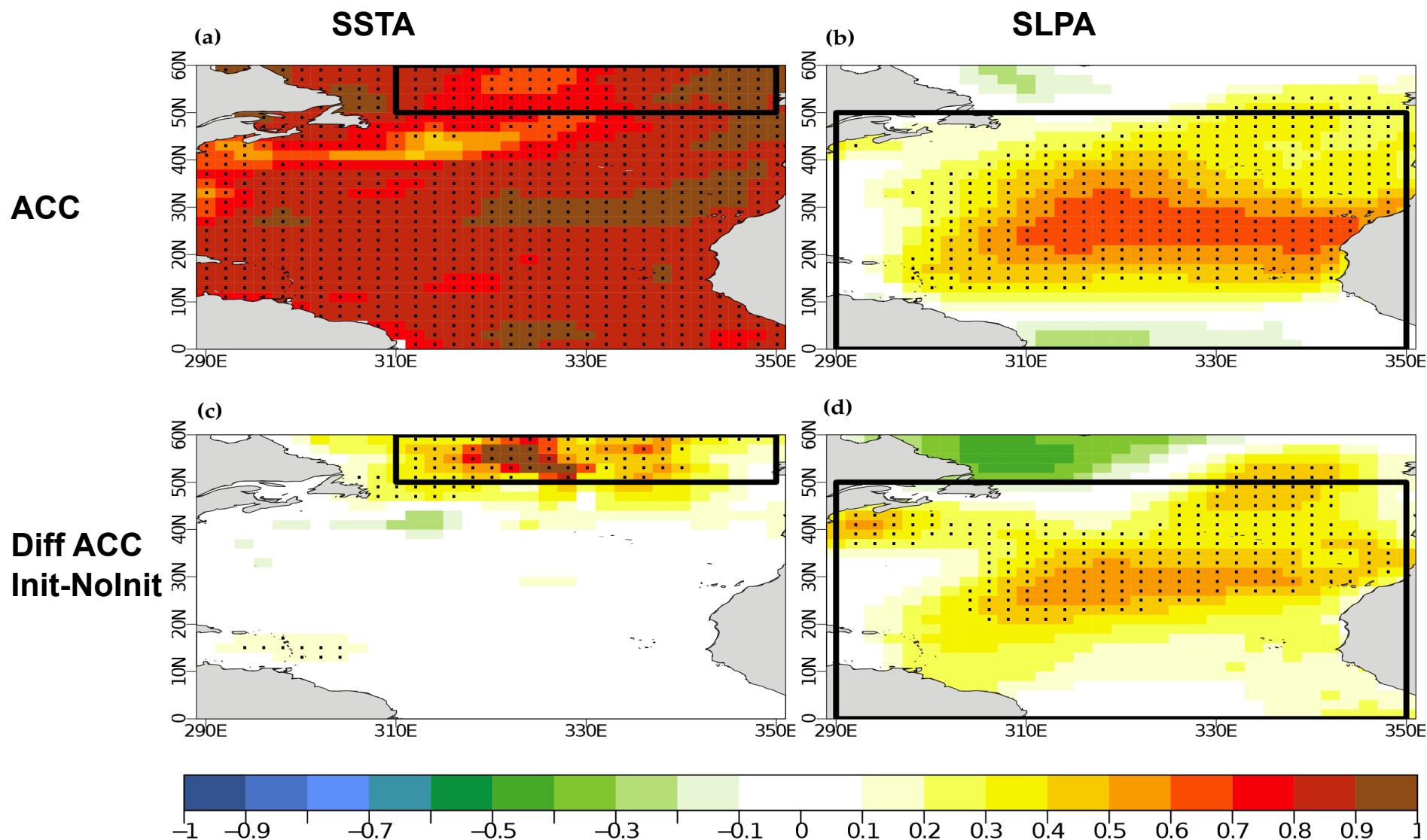
MINISTERIO
DE ECONOMÍA
Y COMPETITIVIDAD



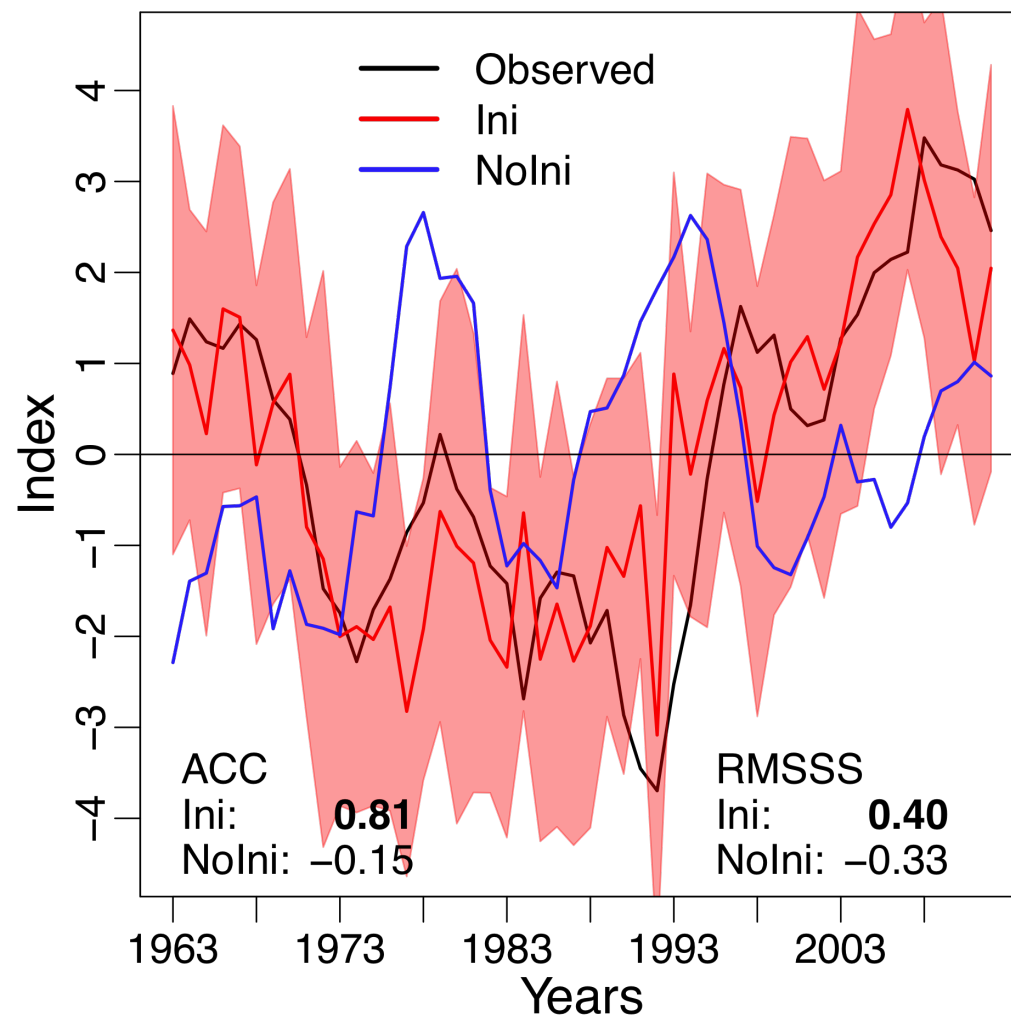
$$\text{Index} = \frac{\text{Standardized SSTA} - \text{Standardized SLPA}}{1}$$



Skill for forecast year 2-5

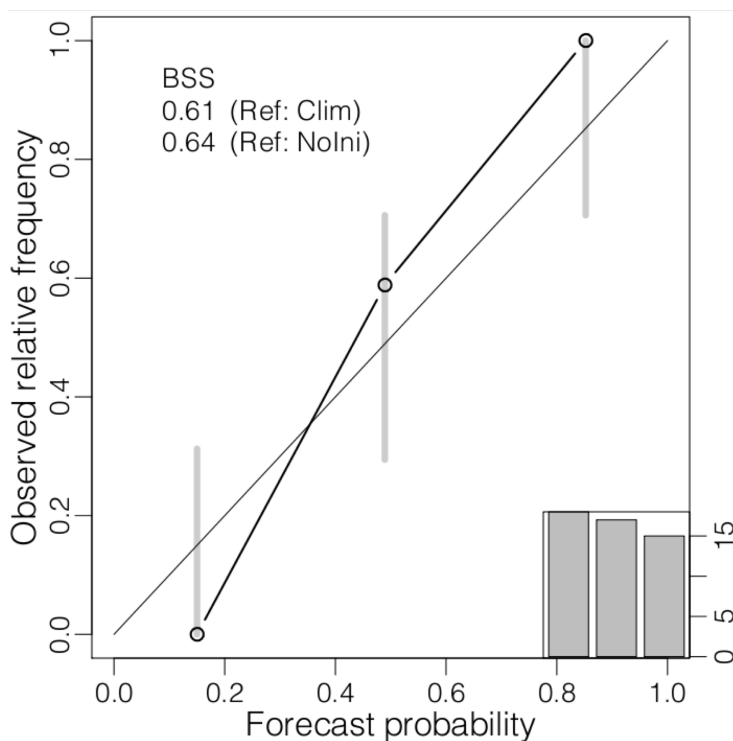


5-year mean index

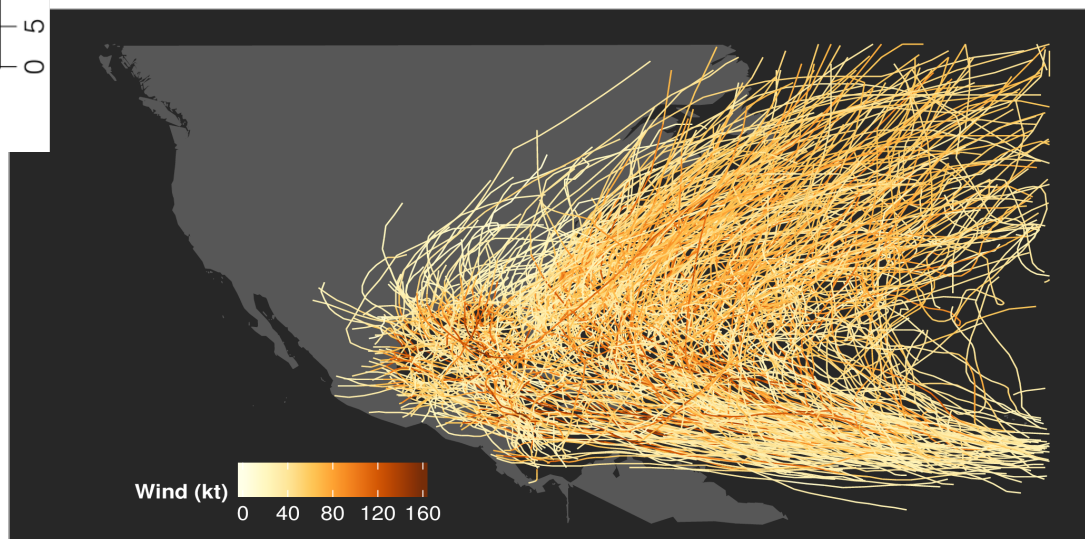
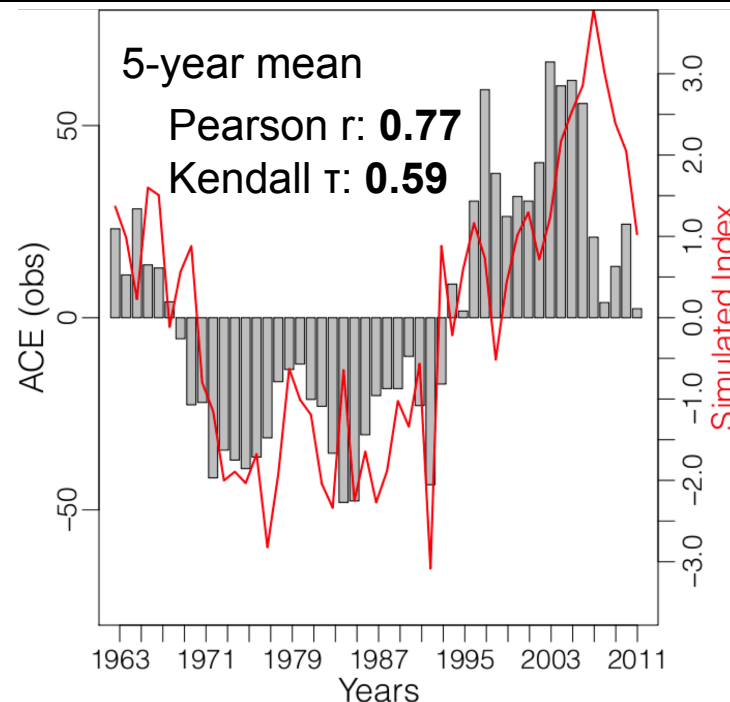


How does this skill translate into forecasting cyclone activity?

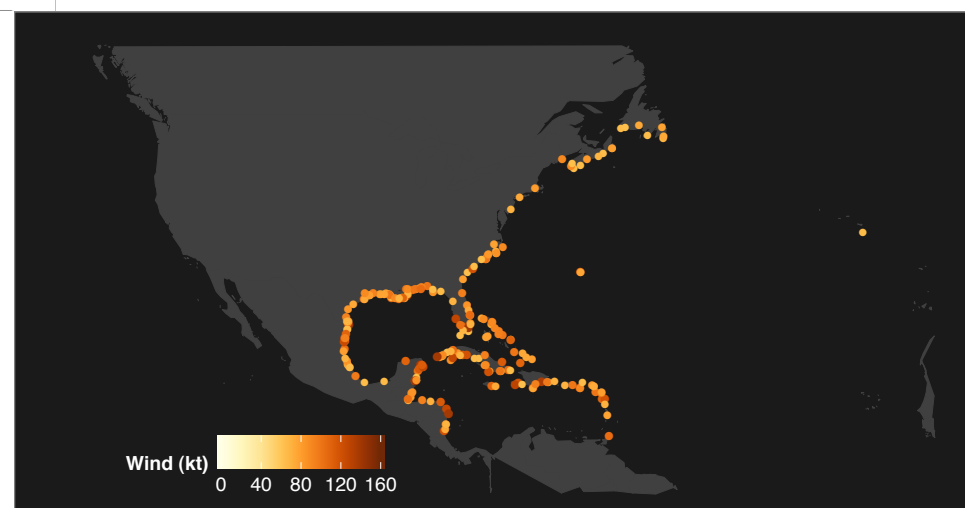
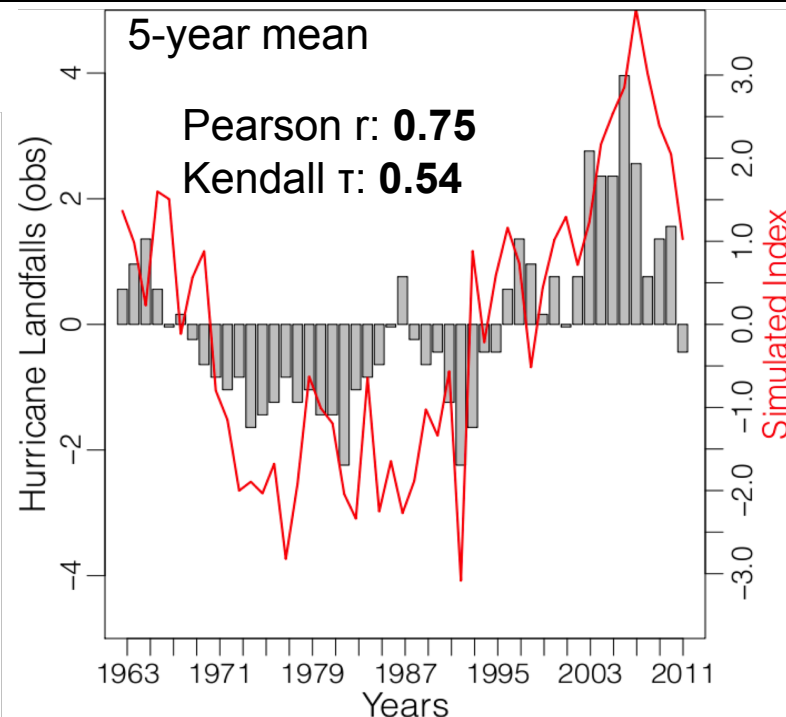
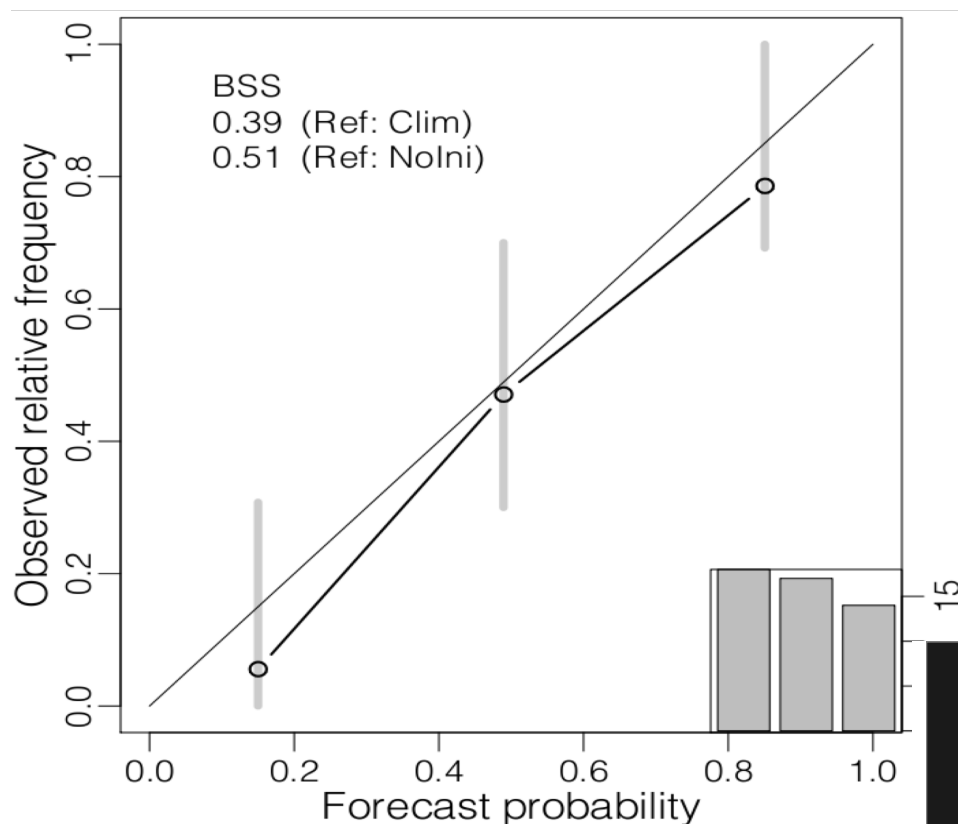
Probability to have + ACE anomaly



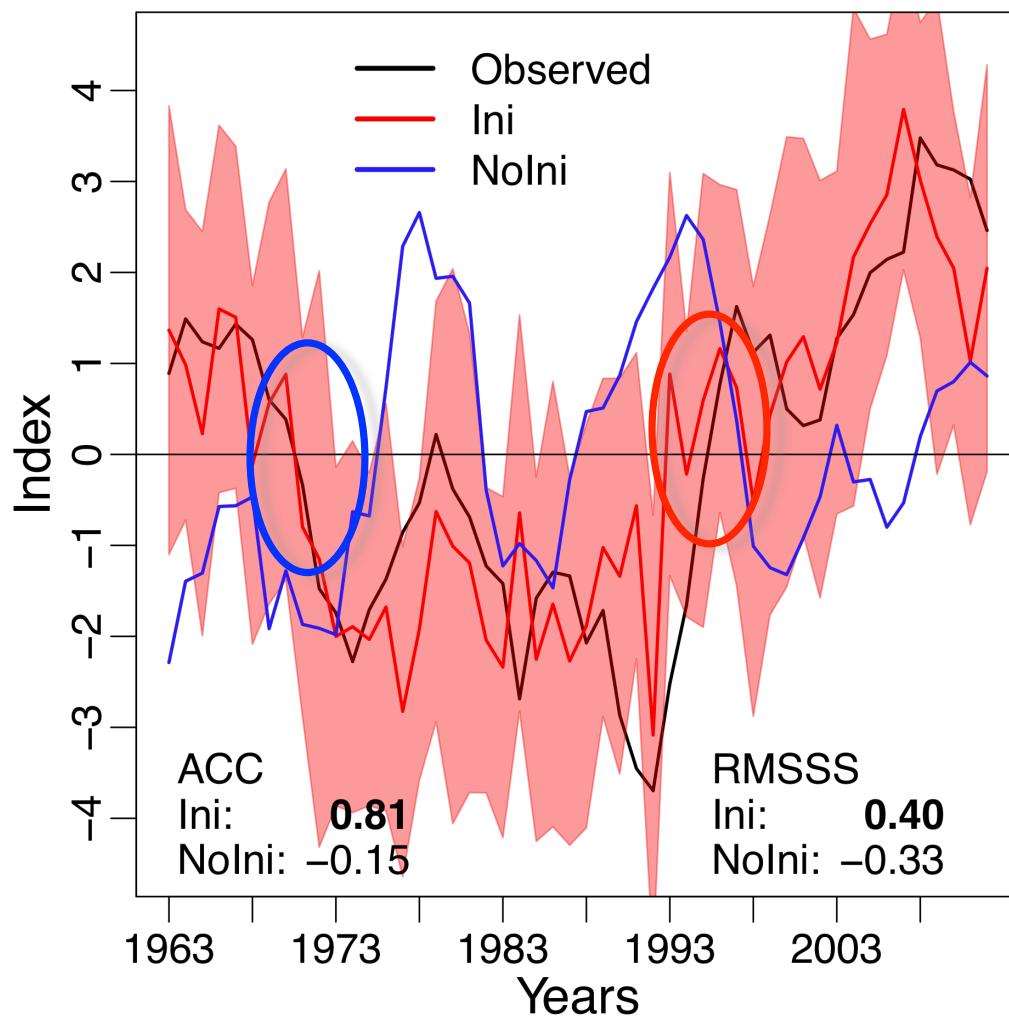
$BSS = 1 - BS / BS_{ref}$
1: perfect prediction
0: no improvement over
climatological forecast

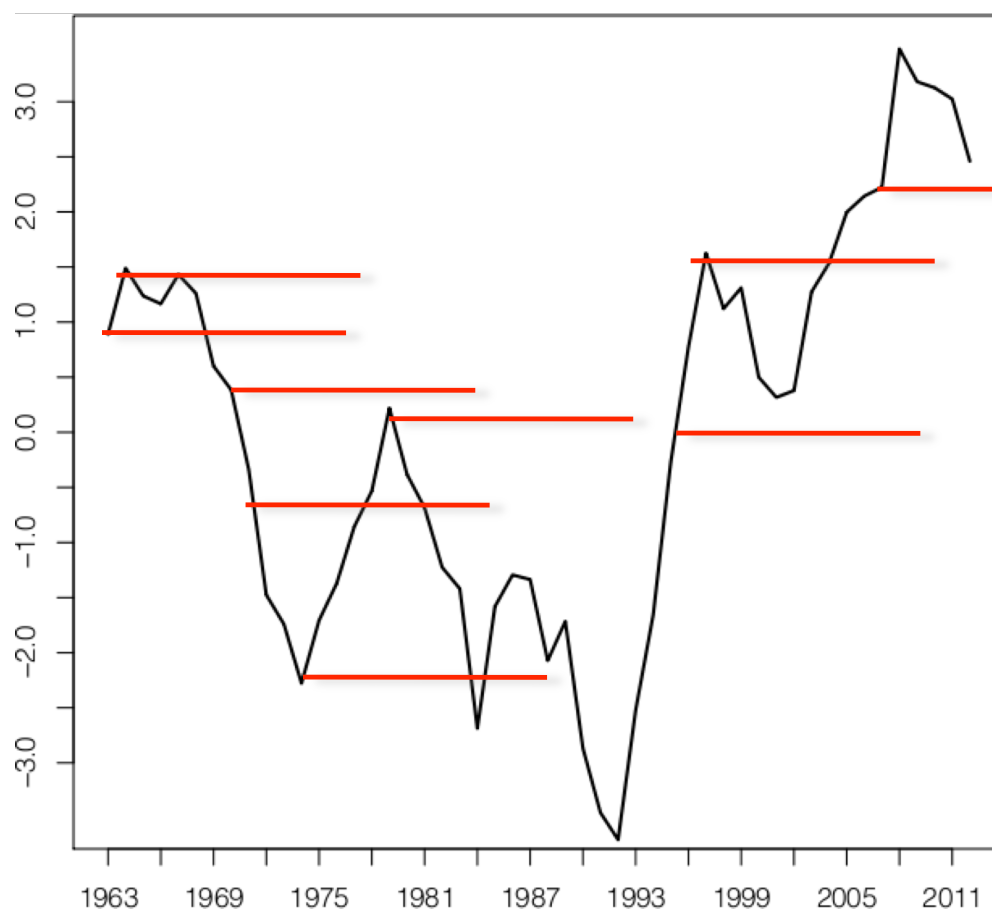


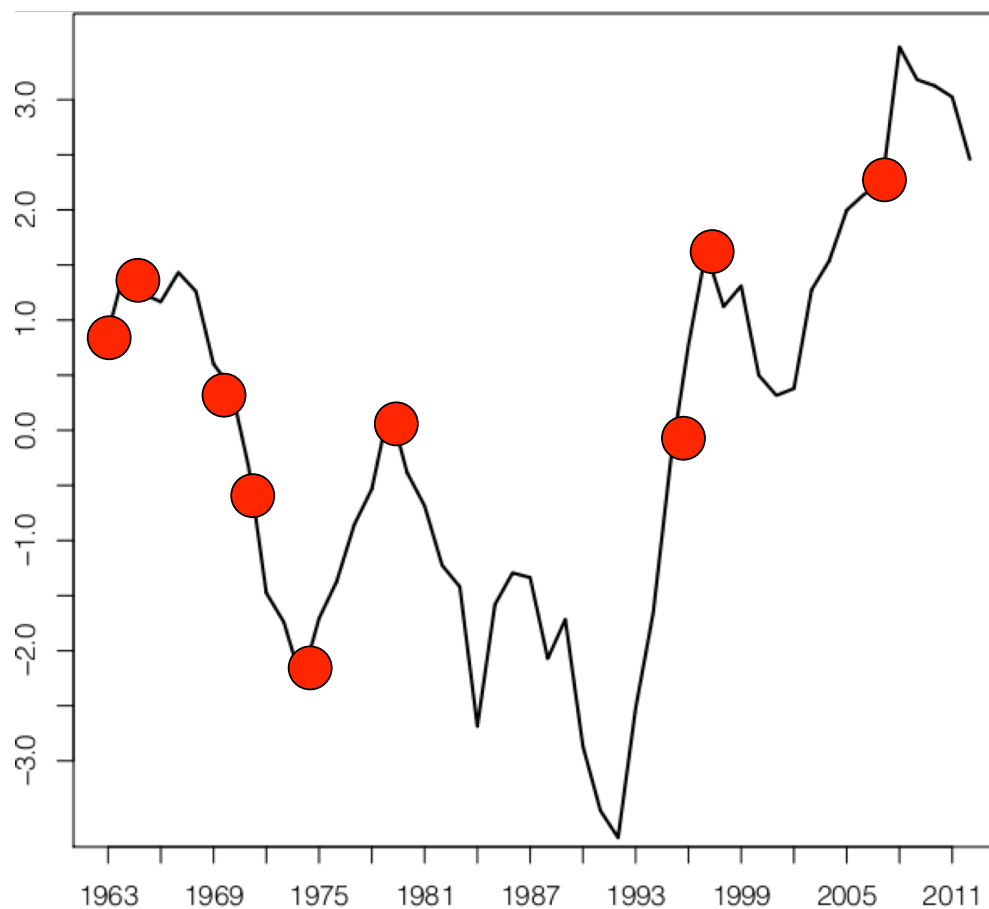
Probability to have + hurricane landfall anomaly



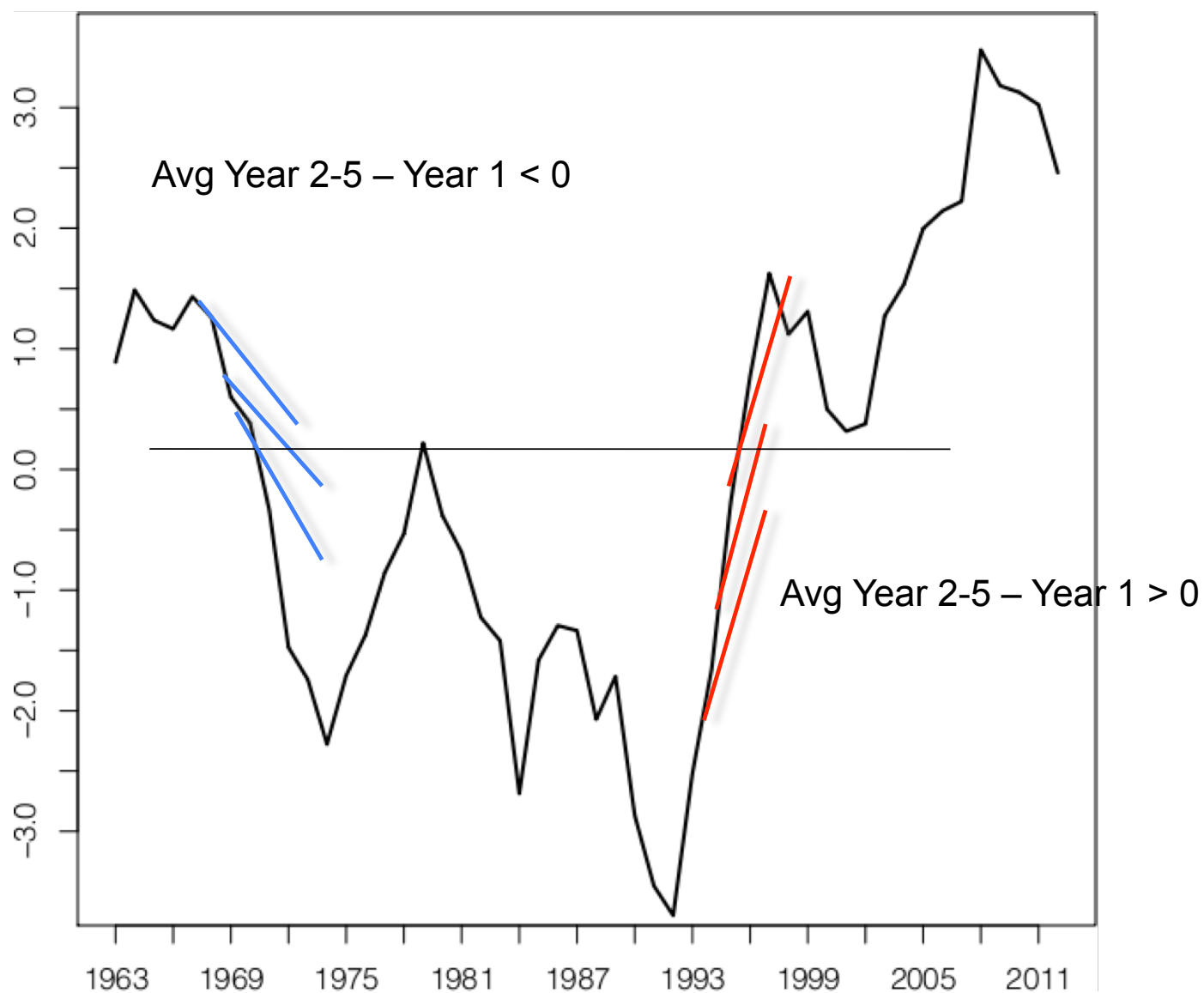
Can we predict the shift between active and inactive phases?







Still good correlation, but no predictive power



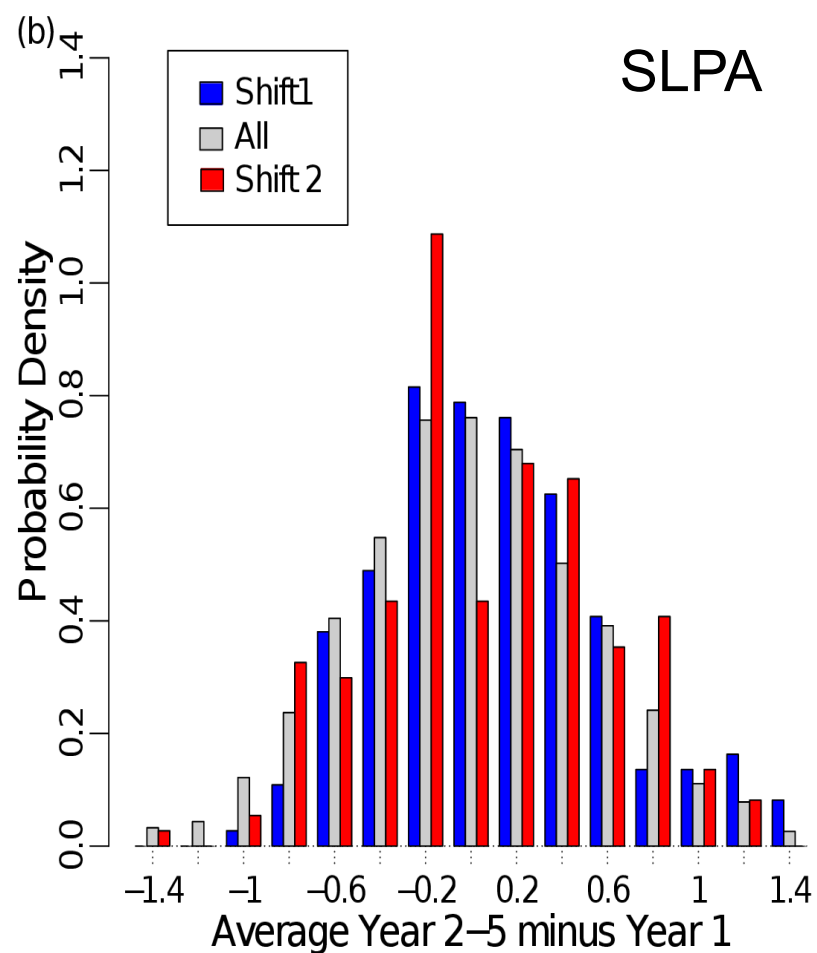
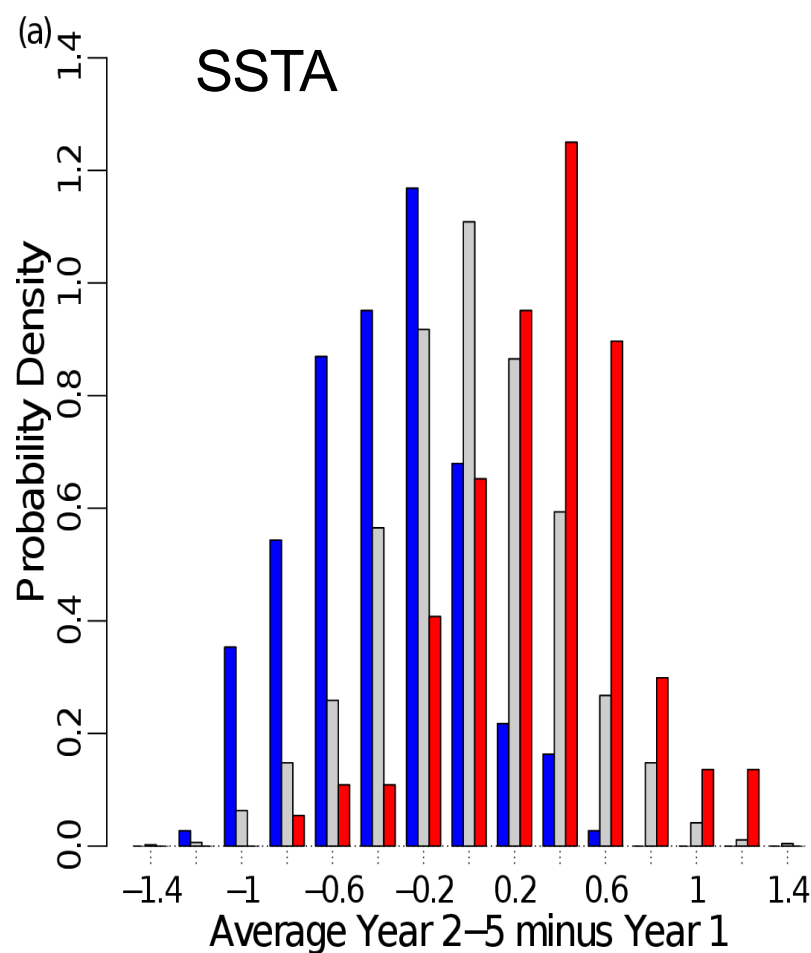
PDF

Avg Year 2-5 – Year 1

Entire period

1966-1969

1991-1994





Thank you

More info:

Caron, L.-P., L. Hermanson, and F. J. Doblas-Reyes (2015)
Multiannual forecasts of Atlantic U.S. tropical cyclone wind damage
potential, *Geophys. Res. Lett.*, 42, 2417–2425.

Image credit: NASA